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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/903,725	07/12/2001	Danny Marvin Neal	AUS920010488US1	9319

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EXAMINER	
JEAN GILLES, JUDE	
ART UNIT	**PAPER NUMBER**
2143	

DATE MAILED: 06/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/903,725	NEAL ET AL.	
	Examiner	Art Unit	
	Jude J. Jean-Gilles	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 February 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 July 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Action is in regards to the Reply received on 17 February, 2005.

Response to Amendment

This action is responsive to the application filed on February 17th, 2005. Claims 1-3, 5-6, and 8-22 were amended. Claims 23 and 24 are newly added. Claims 4 and 7 have been cancelled. Claims 1-24 are pending. Claims 1-24 represent a method and system for "simultaneously establishing multiple connections".

Response to Arguments

1. Applicant's arguments with respect to claims 1, 13, 18, 19, 20, 21, and 22 have been carefully considered, but are not deemed fully persuasive. Applicant's arguments are deemed moot in view of the following new ground of rejection as explained here below, necessitated by Applicant substantial amendment (i.e., a system and method for simultaneously establishing multiple connections...") to the claims which significantly affected the scope thereof.

The dependent claims stand rejected as articulated in the First Office Action and all objections not addressed in Applicant's response are herein reiterated.

Claim objections

2. Claims 5 and 6 depend on claim 4, which is a cancelled claim. The Office examines the application on the assumption that claims 5 and 6 depend both on claim 3. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-3, 5-8, 10-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dearth et al (Dearth) U.S. Patent No. 6,744,765 B1 in view of Bell (Bell) U.S. patent 6,240,457 B1).

Regarding **claim 1:** Dearth discloses the invention substantially as claimed. Dearth teaches a method, operable in a data processing system having a plurality of processes connection (*column 1, lines 52-58*), for performing a communication connection (*fig. 1, items 1-13; column 2, lines 53-57*), comprising the steps of:

sending a communication management request from a first process within the plurality of processes via a communication establishment message to an adapter associated with a second process within said plurality of processes connection (*column 2, lines 57-66*);

receiving a reply to said communication establishment request (co*lumn 2, lines 56-67; column 3, lines 1-2, 29-33*); and

responsive to the second process allowing said communication management request, initiating, under control of said adapter, multiple communication connections and unreliable datagram resolutions (*column 6, lines 4-6; column 2, lines 19-23; it is*

important to note that in a data gram-based network , a sequence of packets from a source host to a destination host may take different path).

However, Dearth does not teach in details sending a communication management request ..wherein a private data field contains communication attributes for a plurality of communication connections and unreliable datagram resolutions.

In the same field of endeavor, Bell discloses a data request communication that that has attributes to connect and identify a plurality of data items [see Bell; column 3, lines 9-22].

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Bell's teachings of a method and apparatus for using field with attributes for communications connection with the teachings of Dearth for the purpose of allowing fewer packets being sent on the network, and fewer sequential packet delays; lower protocol overheads, and more efficient use of network bandwidth... as stated by Bell in lines 1-4 of column 4. By this rationale **claim 1** is rejected.

Regarding **claim 2:** the combination Dearth-Bell teaches the method as recited in claim 1, wherein said first process is an active side of the process [*see Dearth; fig. 2, item 11; column 5, lines 62-67].* The same motivation used for claim 1 is also valid for claim 2 [*see Bell, column 4, lines 1-4*]. By this rationale, **claim 2** is rejected.

Regarding **claim 3:** the combination Dearth-Bell teaches the method as recited in claim 1, wherein the second process is a passive side of the process [*see Dearth; fig.*

2, item 13; column 5, lines 62-67]. The same motivation used for claim 1 is also valid for claim 3 [*see Bell, column 4, lines 1-4*]. By this rationale, **claim 3** is rejected.

Regarding **claim 5:** the combination Dearth-Bell teaches the method as recited in claim 4, wherein said channel adapter is a host channel adapter [*see Dearth; column 2, lines 57-63].*

Regarding **claim 6:** the combination Dearth-Bell teaches the method as recited in claim 4, wherein said channel adapter is a destination channel adapter [*see Dearth; column 2, lines 63-67, column 3, lines 1-2].*

Regarding **claim 8:** the combination Dearth-Bell teaches the method as recited in claim 1, further comprising:

determining that said first process within said plurality of processes has received a reply message from the second process (*see Dearth; column 3, lines 14-18)* within a specified period of time (*see Dearth; column 9, lines 40-47)*;

passing said reply to said first process *(column 6, lines 30-34)*; and

processing said reply message (*see Dearth; column 3, lines 14-18).*

Regarding **claim 10:** the combination Dearth-Bell teaches the method as recited in claim 1, further comprising:

responsive to said reply being received by said first process, creating a communication management message (*see Dearth; column 6, lines 4-9; column 2, lines 19-23*); and

posting the said communication management message as a work request on a communication management send queue associated with the first process within the plurality of processes (*see Dearth; column 6, lines 1-19*).

Regarding **claim 11:** the combination Dearth-Bell teaches the method as recited in claim 10, wherein said communication management message is a multiple connections and unreliable datagram resolutions "ready to use" communication management message (*see Dearth; column 6, lines 9-19*).

Regarding **claim 12:** the combination Dearth-Bell teaches the method as recited in claim 10, further comprising:

converting, by a channel interface, said work request into a work queue element (*see Dearth; column 6, lines 9-14*);

processing, by a channel adapter, the work request (*see Dearth; column 6, lines 9-14*); and

sending said communication management message to the second process (*see Dearth; column 6, lines 20-26*).

Regarding **claim 13:** the combination Dearth-Bell teaches a method, operable in a data processing system having a plurality of processes, for establishing multiple connections ,said method, comprising the steps of:

Sending ca connection establishment request from a first process within the plurality of processes via a communication establishment request for multiple connections and unreliable datagram resolutions message to an adapter associated

with a second process within the plurality of processes (*fig. 2, item 6-7, 11, and 13; column 2, lines 19-23; column 7, lines 61-67; column 8, lines 1-4*);

sending a multiple connections and unreliable datagram resolutions reply communication establishment message, under control of the adapter, to the first process within the plurality of processes (see Bell; column 3, lines 9-22); and

responsive to the second process within the plurality of processes receiving the multiple connections and unreliable datagram resolutions reply communication establishment message from the first process within the plurality of processes, establishing multiple communication connections between the first process within the plurality of processes and the second process within the plurality of processes (*column 6, lines 23-38).*

Regarding **claim 14:** the combination Dearth-Bell teaches the method as recited in claim 13, further comprising:

placing the multiple connections and unreliable datagram resolutions communication establishment request message in a receive queue of communication manager associated with the second process within the plurality of processes (*see Dearth; fig. 2, item 14b*; *column 3, lines 9-14*); and

passing the multiple connections and unreliable datagram resolutions communication establishment request message to the second process within the plurality of processes (*see Dearth; column 3, lines 24-29*).

Regarding **claim 15:** the combination Dearth-Bell teaches the method as recited in claim 13, further comprising:

posting the multiple connections and unreliable datagram resolutions reply communication establishment message as a work request on a communication management send queue associated with the second process within the plurality of processes (*see Dearth; column 3, lines 9-14*); and

converting the work request into a work queue element by a channel interface (*see Dearth; column 4, lines 31-39*).

Regarding **claim 16:** the combination Dearth-Bell teaches the method of claim 13, wherein the multiple connections and unreliable datagram resolutions are considered established when the passive side receives one of a message from at least one established connection and a "ready to use" message (*see Dearth; column 4, lines 31-39*).

Regarding **claim 17:** the combination Dearth-Bell teaches a system, comprising:

a bus system (*see Dearth; column 2, lines 44-57; fig. 1, items 11, and 13*);

a communications unit connected to the bus system (*see Dearth; fig. 1, items 1-2*);

a memory, including a set of instructions, connected to the bus system (*see Dearth; fig. 1, items 8-9*); and

a processing unit connected to the bus system, wherein the processing unit includes at least one processor, wherein the processing unit executes the set of instructions to send a communication management request, via the communications unit, from a first process within the plurality of processes via a communication establishment message to an adapter associated with a second process within the

plurality of processes (*see Dearth; fig. 1, items 10-12; column 4, lines 14-21; column 5, lines 5-8*) retrieve the communication establishment request, under control of the adapter, via the communication establishment message from the host (*see Dearth; column 2, lines 56-57; column 3, lines 1-2; column 3, lines 29-33*), and responsive to the second process within the plurality of processes allowing the communication management request, initiates, under control of the adapter, multiple communication connections and unreliable datagram resolutions(*see Dearth; column 6, lines 4-6; column 2, lines 19-23; it is important to note that in a data gram-based network , a sequence of packets from a source host to a destination host may take different path).*

Regarding **claim 18:** the combination Dearth-Bell teaches a system, comprising:

a bus system (*see Dearth; column 2, lines 44-57; fig. 1, items 11, and 13*);

a communications unit connected to the bus system (*see Dearth; fig. 1, items 1-2*);

a memory, including a set of instructions, connected to the bus system (*see Dearth; fig. 1, items 8-9*); and

a processing unit connected to the bus system, wherein the processing unit includes at least one processor, wherein the processing unit executes the set of instructions to receive a communication management request, via the communications unit, from a first process within the plurality of processes via a communication establishment request message to an adapter associated with a second process within the plurality of processes (*see Dearth; fig. 1, items 10-12; column 4, lines 14-21; column 5, lines 5-8*), sends a reply communication establishment message, under control of the

adapter, to the first process within the plurality of processes, and responsive to the second process within the plurality of processes receiving the reply communication establishment message from the first process within the plurality of processes (see Bell; column 3, lines 9-22), establishes multiple communication connections and unreliable datagram resolutions between the first process within the plurality of processes and the second process within the plurality of processes (*see Dearth; column 2, lines 19-23, column 5, lines 5-8*).

Regarding **claim 19:** the combination Dearth-Bell teaches a system, operable in a data processing system having a plurality of processes (*see Dearth; column 1, lines 52-58*), for performing a communication connection (*see Dearth; fig. 1, items 1-13; column 2, lines 53-57*), comprising:

sending means for sending a multiple connections and unreliable datagram resolutions communication management request from a first process within the plurality of processes via a communication establishment message to an adapter associated with a second process within the plurality of processes (see Bell; column 3, lines 9-22);

retrieving means for retrieving the multiple connections and unreliable datagram resolutions communication establishment request, under control of the adapter, via the communication establishment message from the host (*see Dearth; column 2, lines 56-67; column 3, lines 1-2, 29-33*); and

initiating means, responsive to the second process within the plurality of processes allowing the communication management request, for initiating, under control of the adapter, multiple communication connections and unreliable datagram resolutions

(*see Dearth; column 6, lines 4-6; column 2, lines 19-23; it is important to note that in a data gram-based network , a sequence of packets from a source host to a destination host may take different path).*

Regarding **claim 20:** the combination Dearth-Bell teaches a system, operable in a data processing system having a plurality of processes, for performing a communication connection, comprising:

receiving means for receiving a multiple connections and unreliable datagram resolutions communication management request from a first process within the plurality of processes via a communication establishment request message to an adapter associated with a second process within the plurality of processes (*fig. 2, item 6-7, 11, and 13; column 2, lines 19-23; column 7, lines 61-67; column 8, lines 1-4*);

sending means for sending a multiple connections and unreliable datagram resolutions reply communication establishment message, under control of the adapter, to the first process within the plurality of processes (see Bell; column 3, lines 9-22); and

establishing means, responsive to the second process within the plurality of processes receiving the reply communication establishment message from the first process within the plurality of processes, for establishing multiple communication connections and unreliable datagram resolutions between the first process within the plurality of processes and the second process within the plurality of processes (*see Dearth; column 6, lines 23-38*)

Regarding **claim 21:** the combination Dearth-Bell teaches a computer program product in a computer-readable medium for performing a communication connection (column 6, lines 9-14), comprising:

instructions for sending a multiple connections and unreliable datagram resolutions communication management request from a first process within the plurality of processes via a communication establishment message to an adapter associated with a second process within the plurality of processes (see Bell; column 3, lines 9-22);

instructions for retrieving the multiple connections and unreliable datagram resolutions communication establishment request, under control of the adapter, via the communication establishment message from the host (*see Dearth; column 5, lines 10-25*); and

instructions, responsive to the second process within the plurality of processes allowing the communication management request, for initiating, under control of the adapter, multiple communication connections and unreliable datagram resolutions (*column 6, lines 4-14*).

Regarding **claim 22:** the combination Dearth-Bell teaches a computer program product in a computer-readable medium for performing a communication connection (column 6, lines 9-14), comprising:

instructions for receiving a multiple connections and unreliable datagram resolutions communication management request from a first process within the plurality of processes via a communication establishment request message to an adapter

associated with a second process within the plurality of processes(see Bell; column 3, lines 9-22);

instructions for sending a multiple connections and unreliable datagram resolutions reply communication establishment message, under control of the adapter, to the first process within the plurality of processes (see Bell; column 3, lines 9-22); and

instructions, responsive to the second process within the plurality of processes receiving the reply communication establishment message from the first process within the plurality of processes, for establishing multiple communication connections and unreliable datagram resolutions between the first process within the plurality of processes and the second process within the plurality of processes (*see Dearth; column 6, lines 14-19*).

Regarding **claim 23:** the combination Dearth-Bell teaches the method of claim 13, wherein said communications indicator contains communication attributes for a plurality of connections (see Bell, column 5, lines 1-67).

Regarding **claim 24:** the combination Dearth-Bell teaches the method of claim 13, wherein said communications indicator contains a name of a connection group(see Bell, column 5, lines 1-67).

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dearth and Bell, in view of Boucher (Boucher) U.S. 6,247,060 B1.

Regarding claim 9: The combination Dearth-Bell discloses the invention substantially as claimed. Dearth-Bell teaches the method as recited in claim 1, further comprising:

determining the first process within the plurality of processes has not received a multiple connections and unreliable datagram resolutions reply message from the second process within a specified period of time *(see Dearth column 9, lines 40-47)*; and

However Dearth-Bell is silent on the step of aborting a multiple connections and unreliable datagram resolutions communication establishment process.

In the same field of endeavor Boucher et al disclose a multiple connections and unreliable datagram with the ability to force the context back off the INIC, since IRPs will only get cancelled when a connection is being aborted" (*column 37, 57-62*).

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Boucher et al's teachings of aborting a multiple connection with the teachings of Dearth-Bell, for the purpose of minimizing overhead and significantly improve system performance as stated by Dearth et al in lines 19-23 of column 2. By this rationale, **claim 9** is rejected.

Response to Arguments

7. Applicant's Request for Reconsideration filed on November 16th, 2004 has been carefully considered but is not deemed fully persuasive. However, because there exists

the likelihood of future presentation of this argument, the Examiner thinks that it is prudent to address Applicants' main points of contention.

Applicant contents The Dearth patent does not show sending a communication management request; and that the Dearth patent does not initiate multiple communications connections.

8. It is the position of the Examiner that the Dearth patent does not teach the above mentioned limitations and that the Bell patent is used in combination to reject all claims that contain said limitations. Applicant's arguments are deemed moot in view of the following new grounds of rejection as explained above [*see rejection of claim 1].*

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from examiner should be directed to Jude Jean-Gilles whose telephone number is (571) 272-3914. The examiner can normally be reached on Monday-Thursday and every other Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley, can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3719.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Jude Jean-Gilles

Patent Examiner

Art Unit 2143

BUNJOB JAROENCHONWANIT
PRIMARY EXAMINER

JJG

June 13, 2005